

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Original) A stereoscopic display device of a one-dimensional integral photography system, comprising:

a display unit including a display plane in which pixels are arranged flatly in a matrix shape; and

a parallax barrier including a plurality of apertures or a plurality of lenses and being configured to control directions of rays from the pixels such that a horizontal disparity is included but a vertical disparity is not included,

a horizontal direction pitch of the parallax barrier being integer times a horizontal pitch of the pixels, the display plans of the display unit being divided so as to correspond to elemental images for respective apertures or the lenses of the parallax barrier, and an image subjected to a perspective projection in a fixed viewing distance in a vertical direction and subjected to an orthographic projection in a horizontal direction being divided and arranged for respective columns of the pixels.

16. (Cancelled)

17. (Cancelled)

18. (Currently Amended) A stereoscopic display device of a one-dimensional integral photography system according to claim [[17]] 1, further comprising a detecting mechanism which detects an out-of-viewing zone to the display plane in up and down or front and rear

directions, the detecting mechanism being a vertical direction indicator wherein the vertical direction indicator has having a cyclic structure in a vertical direction.

19. (Currently Amended) A stereoscopic display device of a one-dimensional integral photography system according to claim [[16]] 1, further comprising a detecting mechanism which detects an out-of-viewing zone to the display plane in up and down or front and rear directions, wherein the detecting mechanism has having a blind structure.

20. (Original) A stereoscopic display device of a one-dimensional integral photography system according to claim 19, wherein the blind structure has a curved shape.

21. (Original) A stereoscopic display method of a one-dimensional integral photography system, comprising:

displaying pixels in a display plane which are arranged flatly in a matrix shape; and
controlling directions of rays from the pixels such that a horizontal disparity is included but a vertical disparity is not included by a parallax barrier including a plurality of apertures or a plurality of lenses;

a horizontal direction pitch of the parallax barrier being integer times a horizontal pitch of the pixels, the display plane of the display unit being divided so as to correspond to elemental images for respective apertures or the lenses of the parallax barrier, and an image subjected to a perspective projection in a fixed viewing distance in a vertical direction and subjected to an orthographic projection in a horizontal direction being divided and arranged for respective columns of the pixels.